

CLAIMS

What is claimed is:

1. A microscope having a thin sheet-like mirror, which is formed in such a way that the width of the tip of this thin sheet-like mirror becomes narrower, and having a mirror surface formed at an acute angle at the said tip end.

2. A microscope as claimed in claim 1, further characterized in that the above-mentioned thin sheet-like mirror is formed like a taper, i.e., in a convergent shape.

3. A microscope as claimed in either claims 1 or 2, further characterized in that the above-mentioned thin sheet-like mirror is supported with a support bar arranged at the base thereof.

4. A microscope as claimed in claim 3, further characterized in that the above-mentioned thin sheet-like mirror is supported with a support bar, which is constructed as a unit at the base thereof.

A 5. A microscope as claimed in ^{claim 3} ~~either claims 3 or 4~~, further characterized in that the above-mentioned support bar can be detached from and rotated around a hand piece and is capable of rotation.

A 6. A microscope as claimed in ^{claim 3} ~~any of claims 3 to 5~~, further characterized in that it has a fastening to fix the above-mentioned support to a predetermined angle.

7. A microscope comprised of a means of light emission and reception for illuminating light and image light, a thin sheet-like mirror arranged at this means of light emission and reception, this thin sheet-like mirror being formed so that its width becomes narrower and narrower toward the tip, and a mirror surface that is formed at the said tip at an acute angle.

8. A microscope comprised of a means of light emission and reception, comprised of a straight-through bore having a built-in source of illuminating light, and a light reception bore for image light; and a thin sheet-like mirror, arranged in a closed and adjacent manner with the straight-through bore and the light reception bore of this means of light emission and reception, wherein the width of this thin sheet-like mirror is formed to become narrower towards the tip separately, the mirror surface is formed at an acute angle at the said tip,

the said thin sheet-like mirror navigates illuminating light so as to reflect and irradiate the light at the mirror surface, and the thus reflected and returned image light can be navigated by making a reflection at the said mirror surface.

9. A microscope as claimed in claim 1, further characterized in that a combination of a magnifying lens and the above-mentioned thin sheet-like mirror makes it a loupe.

10. A charge-coupled device-type video microscope comprised of: a means of light emission and reception, comprised of a straight-through bore having a built-in source of the compact charge-coupled device camera's illuminating light, and a light

reception bore for image light separately; and a thin sheet-like mirror, arranged in a closed and adjacent manner with the straight-through bore and the light reception bore of this means of light emission and reception, wherein the width of this thin sheet-like mirror is formed to become narrower towards the tip, and the mirror surface is formed at an acute angle at the said tip,

the above-means thin sheet-like mirror navigates illuminating light so as to reflect and irradiate the light at the said mirror surface, and the thus reflected and returned image light can be navigated by making a reflection at the said mirror surface.

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11. A microscope comprised of: a means of ²²⁰light emission and reception, comprised of a straight-through bore having a built-in source of illuminating light, and a light reception bore for image light separately; and a ²²¹rectangular thin sheet-like mirror, arranged in a closed and adjacent manner with the straight-through bore and the light reception bore of this means of light emission and reception, wherein the mirror surface is formed at an acute angle at the tip thereof, ²²³

²²⁸the said thin sheet-like mirror navigates illuminating light so as to reflect at the said mirror surface, and irradiate the light and the ²³²thus reflected and returned image light can be navigated and condensed by making a reflection at the said mirror surface. ^{Fig 21}

12. A microscope comprised of: a means of light emission and reception, comprised of a straight-through bore having a built-in source of illuminating light, and a light reception bore for image light separately; and a rectangular thin sheet-like mirror, arranged in a closed and adjacent manner with the straight-through bore and the light reception bore of this means of light emission and reception, wherein

the mirror surface is formed at an acute angle at the tip thereof,

the said thin sheet-like mirror is composed of the said thin sheet-like mirrors formed separately and binded each other in accordance with the said straight-through bore and the light reception bore,

the said thin sheet-like mirror navigates illuminating light so as to reflect at the said mirror surface and irradiate the light , and the thus reflected and returned image light can be navigated and condensed by making a reflection at the said mirror surface.

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13. A microscope comprised of: a means of light emission and reception, comprised of a straight-through bore having a built-in source of illuminating light, and a light reception bore for image light separately; and a thin sheet-like mirror, arranged in a closed and adjacent manner with the straight-through bore and the light reception bore of this means of light emission and reception, wherein the mirror surface is formed at an acute angle at the tip thereof,

the said thin sheet-like mirror has a half mirror at the baseside surface, which takes in the said illuminating light and irradiates the said image light,

the said thin sheet-like mirror reflects the illuminating light at the said half mirror, navigates, and reflects at the said mirror surface to irradiate the light; the thus reflected and returned image light can be reflected at the said mirror surface, and navigated to get the light condensed.

14. A microscope comprised of: a means of light emission and reception, comprised of a straight-through bore having a built-in source of illuminating light, and a light reception bore for image light separately; and a thin sheet-like mirror, arranged in a closed and

5 adjacent manner with the straight-through bore and the light reception
6 bore of ^{SA} ~~this~~ means of light emission and reception, wherein the mirror
7 surface is formed at an acute angle at the tip thereof,

8 ~~the~~ said thin sheet-like mirror has a half mirror at the
9 baseside surface, which takes in the said illuminating light and
10 irradiates ~~the~~ said image light, wherein ~~the~~ said straight-through bore
11 and ~~the~~ said light reception bore have polarizing plates whose
polarization angles differ each other,

12 ~~the~~ said thin sheet-like mirror reflects the polarized
illuminating light at ~~the~~ said half mirror to navigate and irradiate
13 the light; and the thus reflected and returned image light can be
reflected at ~~the~~ said mirror surface and navigated to get the polarized
14 light condensed.

15. A microscope comprised of: a means of light emission and
reception for illuminating light and image light; a thin sheet-like
mirror arranged in ^{SA} ~~this~~ means of light emission and reception; and a
mirror surface formed at the tip of this thin sheet-like mirror at an
acute angle,

wherein ~~the~~ said mirror is the separate type in accordance
with ^{SA} ~~the~~ means of light emission and reception.

16. A microscope comprised of: a means of light emission and
reception for illuminating light and image light; a thin sheet-like
mirror arranged in ^{SA} ~~this~~ means of light emission and reception; and a
mirror surface formed at the tip of this thin sheet-like mirror at an
acute angle,

wherein the said mirror has a half mirror at the ~~base~~ side
surface.

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17. A microscope as claimed in any of claims 11 to 16, further characterized in that the above-mentioned means of light emission and reception has polarizing plates of different polarizing angles. 2.36

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18. A microscope as claimed in any of claims 11 to ¹⁶~~18~~, further characterized in that the above-mentioned thin sheet-like mirror is detachable from a hand piece.

19. A microscope characterized in that it is a charge-coupled device-type video microscope with a built-in compact charge-coupled device camera.

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20. A microscope as claimed in any of claims 11 to ¹⁶~~19~~, further characterized in that the above-mentioned thin sheet-like mirror is rectangular.

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